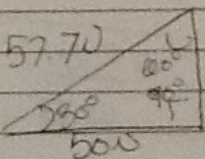


Page Tunnickliff
Physics
3-2-12

$F=ma$ 57.7N
 $F=10(5)$
 $F=50N$



$30(\sin)50 = 28.8N$

$a^2 + b^2 = c^2$
 $28.8^2 + 50^2 = c^2$
 $= 57.7N$

57.7N at 30° N of E

This first examples is well done as far as accuracy and neatness of work. They identify the appropriate equations and carry out the mathematical steps perfectly . However, I would comment to this student that I would want them to write the entirety of the problem at the top of the page so that when they return to study from the problem they know what was initially asked. The performance level of this student is **AVERAGE**. I would like to see a more coherent approach to the problem.

$$\frac{50\text{ N}}{30\text{ kg}} = 1.6\text{ m/s}^2$$

$$\frac{43.3\text{ N}}{30\text{ kg}} = 1.4\text{ m/s}^2 \quad 50 \cos(30)$$

$$F(x) = 43.3\text{ N}$$

Question: Adam is sliding a 10 kg box across a frictionless floor by applying a force at an angle of 30 degrees above the horizontal. If the box is accelerating at 5 m/s², what force is Adam applying.

$$F = ma$$

acceleration = 5 m/s²
 mass = 10 kg

$$F = 5 \cdot 10 = 50\text{ N}$$

sohcahtoa

$$\tan(30) = \frac{y}{50} = 28.8\text{ N}$$

$$a^2 + b^2 = c^2$$

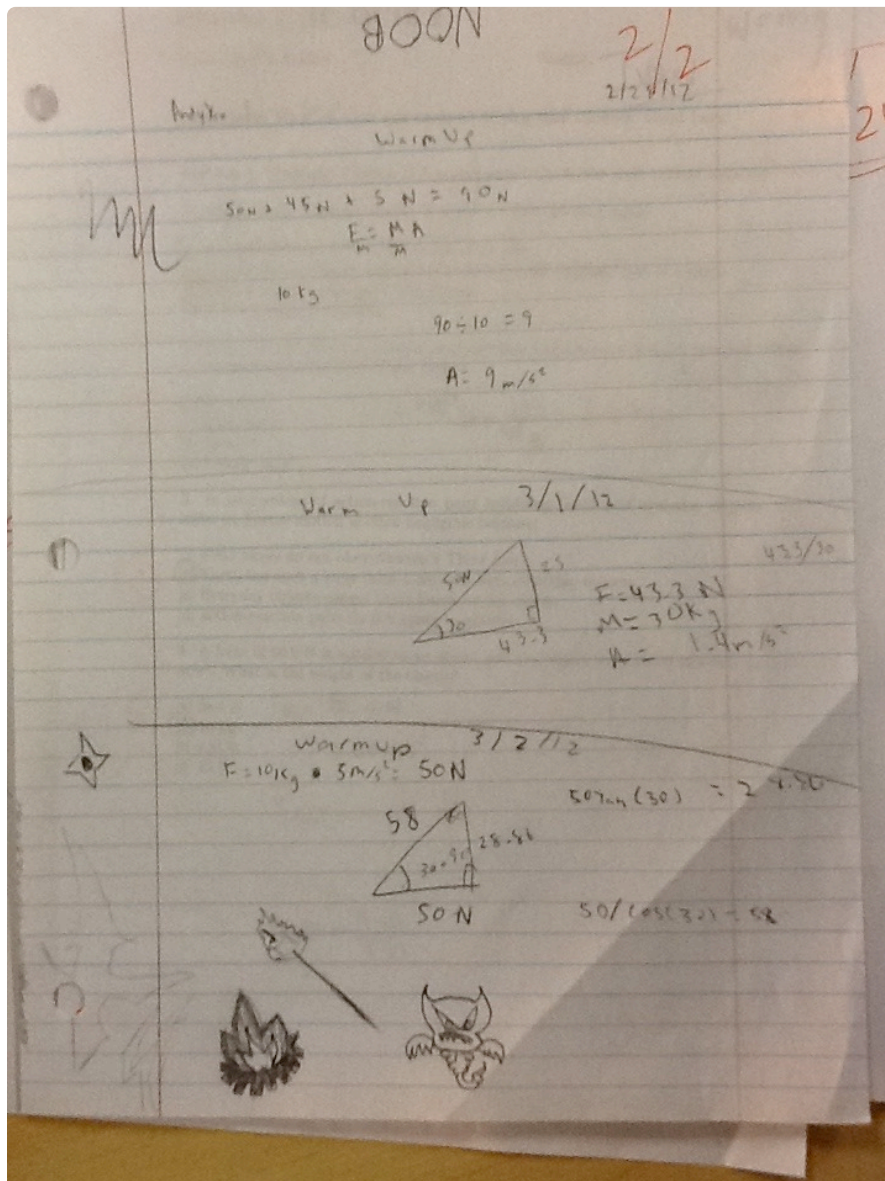
$$50^2 + 28.8^2 = c^2$$

$$2500 + 829.44 = c^2$$

$$\sqrt{3329.44} = \sqrt{c^2}$$

$$c = 57.7\text{ N}$$

This example is perfectly done. The mathematical steps are clear, the problem is written on top of the page, and everything is very neat. I look at this problem and know that this student understands the material that we are covering. The performance level of this student is HIGH.



This is an example from the other side of the spectrum. The mathematical steps are not clearly written, the problem is not included, and there is no order or organization to the page. I would have to have a discussion with this student about better organizational practices. The performance level of this student is **LOW** because I need to see more of their problem solving strategies.